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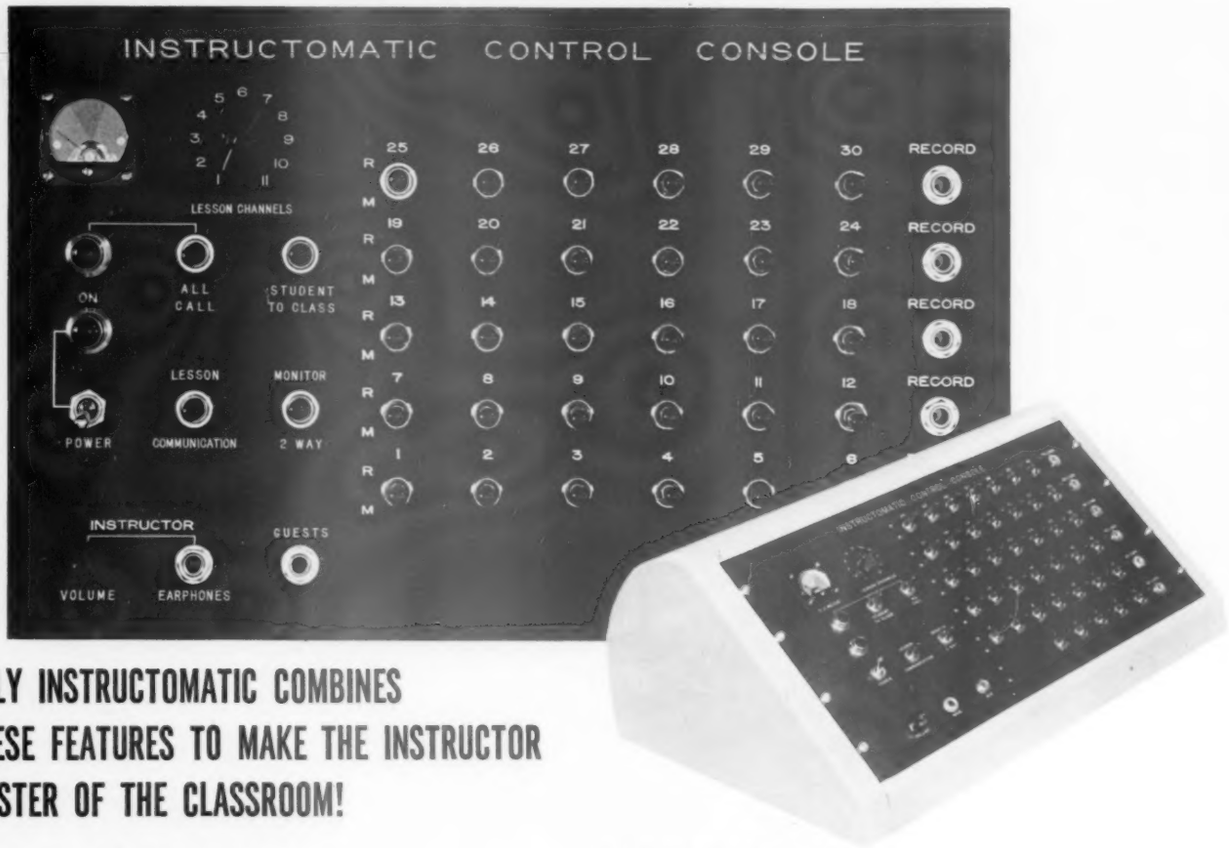

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AUDIO - VISUAL INSTRUCTION is published monthly except July and August by the Department of Audio-Visual Instruction of the National Education Association of the United States, 1201 16th Street, N. W., Washington 6, D. C. AUDIO-VISUAL INSTRUCTION goes to all members of the Department; membership dues including AUDIO-VISUAL INSTRUCTION, $5 ($2 of which goes to AUDIO-VISUAL INSTRUCTION); Single copies of AUDIO-VISUAL INSTRUCTION, 50 cents, annual subscription, $4. Second class postage paid at Washington, D. C. Copyright 1959, Department of Audio-Visual Instruction, NEA. All articles are contributed.

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John E. Medaris
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6 by 60

"Six by Sixty" is the slogan for this year's membership drive which got off the ground in August three months ahead of last year's schedule and with the ante raised this year from "every member get a member" to "every member get TWO members."

Translated, "six by sixty" means 6000 DAVI members by the time of the National Convention in late February.

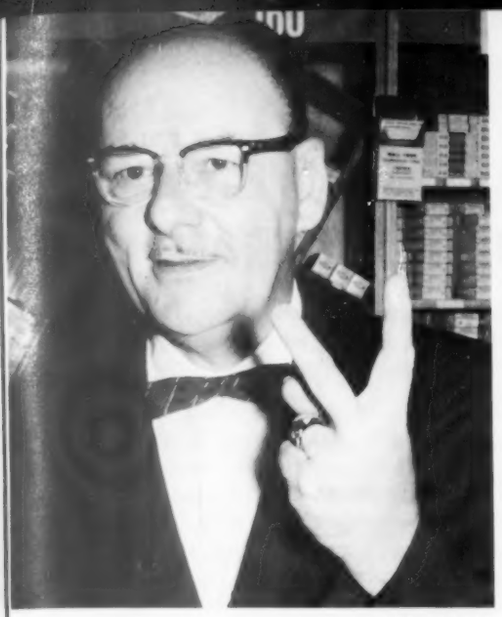
Fortunately for DAVI, Clyde Miller who steered the campaign that netted 700 members last year has consented to prolong his services. Supported by an enthusiastic secretary, Patricia Ann Abrams, and by Florence Fan whose untiring efforts in the national office are well known, there is a good chance that Clyde will be able to propel the rest of us to the 6000 mark this year.

Potential DAVI members abound in every school situation and community. You have only to look around you to find them—AV directors, curriculum people, administrators, PTA members, school board members, regional and state AV company representatives, local dealers, and industrial training directors. You, as a DAVI member, are in a position to see these people personally. As a local person your words will carry weight as you explain the benefits of DAVI membership.

Remind your prospects that with the passage and implementation of the National Defense Education Act, DAVI has become more vital than ever as a professional group. As Roy Hall told a general session at the Seattle Convention: "When the need for increase in quality and quantity in education in these United States became apparent, you as a resource for meeting this need appeared quite obvious."

Those of you who are serving as program chairmen for state and local meetings coming up this fall have an excellent opportunity to contribute. Be sure to get the state membership chairman a spot on the program. Don't neglect to write Florence Fan for handout materials and booster pins (and see that the deserving are wearing theirs.)

It might also be beneficial to invite NEA Board members living in the state to your audiovisual meetings. The organization as a whole will



ROBERT LOTT

Clyde Miller in characteristic salute reminds every member to get "two" members.

profit from an NEA Board informed and interested in audiovisual activities. Every state has at least one NEA Board member, and more if the size of the state warrants it. (The national office will be glad to supply names.)

State organizations are an excellent starting point for this year's drive. Your national membership chairman has announced that the national office will award special recognition to all state associations that report 100 percent DAVI membership. As first order of business, then, let's clean out those pockets of AV workers still not affiliated with the national organization.

—A. L. H.

Next Month and This

We think the urgent need for information on foreign language teaching justifies devoting one entire issue to the question, and we invite readers to regard the advertisements in this special issue as supplementary reading.

Our apologies to our departmental editors whose September copy has been set in type ready to be published in October — along with articles on "AV and the curriculum" by Horace Hartsell and Harry Skelly.

—THE EDITORS

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in this issue

THE EDITOR and editorial board approach this issue of AVI with much trepidation. The use of electronic installations for foreign language teaching is quite recent, and, to say the least, in a fluid state. Most experience reported to date is based on uses in higher education.

There are, therefore, at this time many honest differences of opinion, no standardized terminology, and more unsolved problems than reliable answers. The editorial board did feel, however, that many language installations will be made and much money spent before we can have definitive answers. California, for example, predicts that $2.5 million will be spent in that state alone in the next six months for language teaching equipment. Since AVI readers are often asked for counsel it seemed advisable to collect for their guidance opinions on some of the most persistent problems.

We canvassed a number of audiovisual directors, modern language teachers, and administrators for the questions they are most frequently asked about electronic installations, hoping to come up with at least 50 good ones. We got more than 100. Those selected for reply have been organized under seven headings for the convenience of readers. There is naturally some overlap and there are some questions that could have been classed under several headings. Where the editor and consultants were aware of differences of opinion, and where different answers received complemented one another, more than one answer is given.

Our work was just underway when we realized that a neighbor organization was making admirable progress on a publication dedicated to answering, among other questions, many of those we were asking. The *Purchase Guide* for equipment and materials published by the Council of Chief State Schoc Officers has been written "to assist elementary and secondary school authorities in the wise and economical purchase of materials, apparatus and equipment for the improvement of instruction in science, mathematics and foreign languages, and in the establishment of standards for purchases under Title III of the National Defense Education Act."

Published by Ginn and Company of Boston, the first edition of this publication is having wide circulation and many of the guidelines set down, however tentative they may be, will shape efforts for years to come in the science, math, and foreign language fields.

In the interest of harmonizing efforts and regularizing terms, we asked the two specialists responsible for the modern foreign language section of the *Guide* to act as consulting editors for this issue. This they kindly agreed to do, in spite of heavy schedules. For invaluable services rendered we are indeed grateful to Frederick D. Eddy and Elton Hocking. Without their expert help this issue would not have been possible.

Please be tolerant of the pioneers who on short notice contributed answers to your questions based on their experience. They may even, in some cases, want to reserve the right to change their opinions in the years to come! If you have opposing opinions based on your experience we will be glad to hear from you and, as space permits, will print your statements.

—ANNA L. HYER

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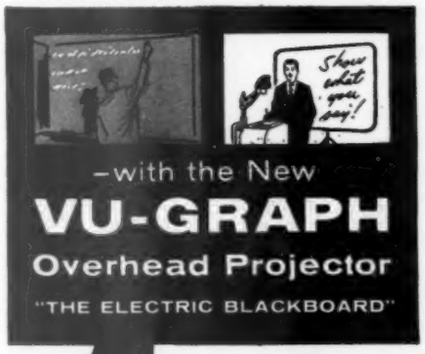

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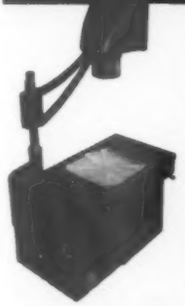

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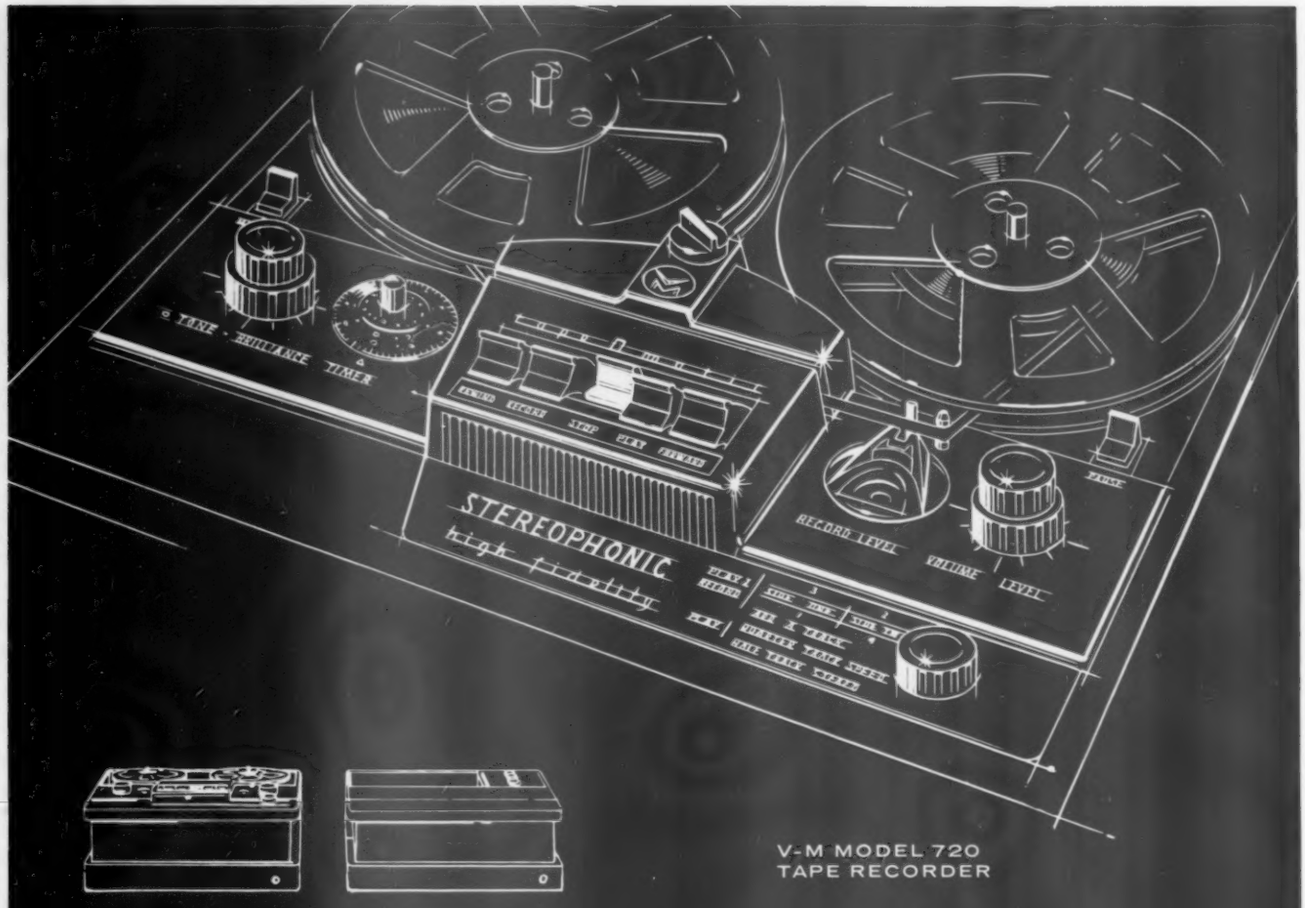

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Consultants' Preface

Frederick D. Eddy

Associate professor at the Institute of Languages and Linguistics, School of Foreign Service, Georgetown University, Dr. Eddy was one of the earliest experimenters in mechanical equipment for language teaching and one of the first writers in the field. (See "The Language Studio," MLJ, April 1944.) He was recently consultant for foreign languages to the U. S. Office of Education (Title III), and edited the 1959 Northeast Conference Reports. Dr. Eddy, who is also editor of the HRS Junior Language Courses (specially recorded for children), claims materials as his main area of interest.

Elton Hocking

Dr. Hocking, whose demonstration of teaching modern foreign languages was a high point of the Seattle Convention, has been a DAVI member for many years. Like Dr. Eddy a pioneer in language laboratories, he is head of the Department of Modern Languages at Purdue University. He has represented the Modern Language Association at various conferences concerned with the National Defense Education Act and has served as consultant to others. At the national TEPS conference in June he made the presentation on foreign language teacher education.

THIS AVI assignment has come as an interesting complement to the work just completed on the CCSSO *Purchase Guide*. We have edited the questions and answers somewhat, mostly to regularize terminology so that it corresponds with that in the *Guide*. (Without generally accepted terminology no profitable discussion is possible.) We have also, in view of space limitations, had to cut and, in a few cases, reorganize a text. But in no case have we knowingly altered the sense of any reply. Here and there we have added comments of our own.

We have been fascinated to see how general is the agreement on the principles underlying the use of electronic equipment in modern foreign language teaching. So that these principles—indispensable to a proper understanding of the equipment and its use—will be set out initially in these pages, we now quote at some length from the Introduction to the modern foreign languages section of the *Purchase Guide*.

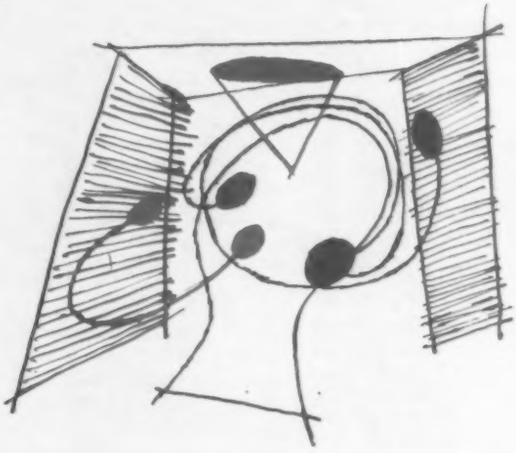
> Learning a modern foreign language for use in personal communication is, in some respects, like learning one's native language in infancy and childhood. It is not so much the learning of a body of content as the development of a skill. It is not something that the student *studies*, it is something he *learns to do*. It is not something one *talks about*, it is something one *talks*. The myth that Americans have no aptitude for speaking foreign languages arises from the fact that most Americans who have studied a foreign language did not start off hearing and speaking it in their childhood (as thousands of young Americans are now doing), and that what they did learn during a very brief two or three "years" in high school or college was not a foreign language at all. It was more or less erudite talk about, and decoding (translation) of a foreign language, all, of course, in English.
>
> A modern foreign language effectively taught and practiced for use at any age level should be approached by developing these four skills in sequence: (a) understanding by ear; (b) speaking only what is understood; (c) reading initially only what is understood or spoken; (d) writing only what is easily understood, spoken, and read. Such a progression eliminates translation to and from English during the early stages of practice and establishes the second language in its rightful place as coordinate with, rather than dependent upon, the English language. The control of grammar comes initially from imitation, repetition, and analogy, using the spoken foreign language in natural situations. Only advanced students having acquired some proficiency in the four skills should undertake the formal analysis of grammar, or translation from the foreign language to English and vice versa.

On the use of electronic equipment the *Purchase Guide* continues:

> In the following pages audio and visual electronic equipment for foreign language learning are treated separately, and the audio is given more space. There are two reasons for this. In the first place, the audio is absolutely essential, and can be used very profitably in the total absence of the visual. In the second place, the precise role of the visual combined with audio is probably very important, in many ways and for many reasons not yet clearly understood. But as yet its role is not fully enough delimited to be described with confidence. A great deal of fundamental research needs to be done in this area.

—FREDERICK D. EDDY AND ELTON HOCKING

LANGUAGE LEARNING TODAY



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45 Questions & Answers

Some Basic Concepts

Q *Upon what basic concepts of language learning is the use of electronic equipment predicated?*

A The primary concept is that effective language learning means the establishment of audio-lingual skills for communication, that is, of effective automatic responses to speech situations. Two of the terms used to describe the successful acquisition of these skills are "near-native pronunciation" and "good grammar."

The process of learning these skills involves alert listening and careful repeating after authentic models; abundant drill under competent guidance; carefully graded oral exercises maximizing the chances of correct student response and minimizing the chances of error; immediate correction of error when it does occur, followed by drilling of the correct form again; finally, for older students capable of handling the machines profitably, self-recording followed by attentive comparison with the model voice for self-criticism and correction. All of these activities prepare for the focal point of the entire procedure, which is to engage in meaningful conversation in the foreign language. The effectiveness of the drill activities for the individual student and for the group is multiplied many times by the proper use of good materials and electronic equipment. In fact some of the activities just described are impossible, or at best very time-consuming, without the machines.

It is axiomatic that the drill activities will be most rewarding when aided by a thoroughly trained teacher, and by high quality sound equipment which provides the learner with crystal-clear reproduction of the model and of his own voice.

It is generally assumed that pupils in the lower grades require personal instruction to a greater degree than older students. Electronic equipment can serve to provide good oral models for imitation by small children, but the further use of equipment should probably be reserved for older students. —F.E. & E.H.

Q *What is a language laboratory?*

A A language laboratory is a complete electronic installation which provides a booth, headset, microphone, sufficient recording facilities for every student in the room to record frequently, and monitoring facilities for the teacher. Normally the teacher is provided also with a recorder-playback, headset, microphone, P.A. system, and frequently a "console" or switchboard for monitoring and intercommunication with individual students. Visual facilities include a projection screen, 16mm film projector, slide and filmstrip projector, and perhaps opaque and overhead projectors. The movie projector should be as quiet as possible, with good quality of sound that can be piped into the sound system.

The "library-type" laboratory is planned to enable students to enter at all hours and ask for any tape, as they would ask for a book in the library. Such a laboratory must therefore be supplied with several taped copies of every recorded lesson, just as the reserved-book room of the library must have several copies of each book that the students are required to use. Each student's instrument is normally a two-channel tape recorder. The channel which plays the recorded lesson is not erasable; the other channel records the lesson and also records the student's responses. He can erase this channel whenever he wishes.

The advantages of this arrangement are: (1) The student may come to the laboratory whenever he chooses and proceed at his own pace; (2) The laboratory may be supervised by a non-professional person such as a technician or student assistant. The disadvantages: (1) The student's "own pace" may be ill-chosen, and as with reserved book assignments, attendance may be erratic—sometimes with waiting lines and sometimes with no customers—so that elaborate scheduling involving a time clock, etc. becomes necessary; (2) The teacher's physical absence may induce a corresponding absence of interest and cooperation. Students are quick to sense this, and the poorly motivated ones may not work as hard when supervised by a mere employee; (3) A large supply of tapes must be purchased, and several dubbings of each recording must be made, cataloged, and kept available; (4) Two-channel instruments cost about 20 percent more than single channel.

The "group laboratory" follows the classroom precedent of having all students do the same thing at the same time. Teacher and class go to the laboratory, as they do to the classroom, at the regularly scheduled hour. Since the entire class is studying the same lesson, only one recording of it is needed. This is played at the teacher's control center and is piped into all booths, which therefore need only single-track instruments and a tape which remains there hour after hour. On this tape is recorded all that the student hears and says, and parts of it are played back whenever the teacher chooses. The assumption is that pace, replay, and indeed all activities in the laboratory should be determined and supervised by the teacher in person.

The advantages of this arrangement are: (1) simplicity of scheduling and operation; (2) integration of all aspects of the course by reason of the constant presence of the teacher; (3) little or no dubbing of recordings; (4) savings on cost of tapes and instruments.

The disadvantages are that (1) all students must work at the same pace and adjustments can be made only in extra "help sessions"; (2) some teachers may prefer not

to be involved in laboratory activities; (3) the teacher's time is more costly than that of an assistant.

Less elaborate installations are:

1. *Practice room.* Player, microphone, earphones, amplifier, and loudspeaker make up the minimum equipment which provides for group listening and choral response.

2. *Listening installation,* using part of the library or study hall. Since quiet is necessary, there is no loudspeaker and no oral response, only listening through earphones. Supervision is usually supplied by the teacher or librarian in charge.

3. *Electronic classroom.* This is a standard classroom, equipped for individual listening and choral response. Equipment consists of individual earphones for students and a player (with cover and lock) for the teacher. Convertible booths are desirable. Another option: activated headsets which amplify and direct the student's voice into his earphones while he is speaking. Still another option is a console for the teacher who may thus monitor any student and perhaps talk with him privately. Using all these options, the electronic classroom lacks only an adequate number of individual recording facilities for students in order to qualify for our definition of the language laboratory. —E.H.

Q *How long has electronic equipment been used for language teaching? How extensive is the use?*

A Electronic equipment for language teaching is a recent development, still experimental, but gaining popular acceptance as an integral part of language learning facilities. Language teachers have always made some use of audiovisual materials, generally as a supplement to class work. The intensive language programs during World War II, however, made extensive use of training aids—both audio and visual. This was necessary because of the sudden need for persons who could communicate vital information by telephone and who could monitor radio broadcasts in foreign territory—to mention only two of many needs for communication skills. Active drill, as opposed to passive listening, led to a new concept in the use of mechanical and electronic equipment in language learning. Audiovisual materials constituted the language course, not just a supplement to it.

During the war years and following, much discussion centered about the feasibility of adapting certain features of the specialized training programs to regular classroom use, and numbers of schools and colleges began to make modifications in their language programs. The past decade has been a period of lively experimentation. According to a survey made in the school year of 1957-58, two hundred forty colleges and universities and 64 high schools were using electronic installations. At present there is a phenomenal increase in the numbers, both in secondary and higher education. This growth is being stimulated by the provisions of Title III of the National Defense Education Act and by public awareness of the importance of understanding and speaking modern foreign languages.

—MARJORIE C. JOHNSTON

Q *Where can we see good language installations in operation?*

A These are the best that I observed on a recent field trip: Pascack Valley Regional School, Hillsdale, N. J. Various types of equipment are employed here: tape recorders, tape recorders with magnetic discs, built-in analyzers (activated headsets) and listening station. The laboratory is being used by Latin classes as well as French, Russian, and Spanish classes.

Choate School (private), Wallingford, Conn.

J. Sterling Morton (West) High School, Berwyn, Ill. A language teacher who does not know Italian is conducting an interesting experiment using tape recordings. She is learning Italian with the class.

Brighton High School, Rochester, N. Y. Electronic classroom, not a language laboratory.

—ELAINE M. HARDIE

CONSULTANTS' NOTE: For other addresses, consult *Foreign Language Laboratories in Schools and Colleges,* by Marjorie C. Johnston and Catharine C. Seerley. Equipment manufacturers and local leaders in the modern foreign language field can also help you identify well equipped and well run installations.

Q *What functions do visuals serve in modern foreign language teaching?*

A Visuals are, broadly speaking, the pictured presentation of realia. Their value has seldom been questioned. Projected on a screen, the pictures are large enough for all students to see easily, and the problem of logistics has been solved by the camera. The motion picture film with foreign language sound track can be a more authentic foreign experience than the average tourist trip.

This experience of the foreign culture is, when well planned, no less valuable educationally than the linguistic aspect of the course. However, both aspects should be combined, thus reinforcing and completing each other. Even if the language alone is sought and taught, the visual context is uniquely valuable for it identifies the referent without recourse to English; moreover the identification is culturally authentic, which the printed word often is not. Thus the picture of a French loaf of bread is more authentic than the dictionary, which merely states that *le pain* is "bread." To our students, this means the familiar American machine-made product. Although theoretically "language is sounds," in simple conversations our language commonly refers to what we see around us. Elementary language learning can be greatly facilitated by this visual context, and visuals can supply it. —E.H.

Q *Can a young student learn efficiently without watching as the sounds are produced?*

A At one time I would have said that students cannot learn the sounds of a foreign language without watching how they are produced, but after having worked with children and specially prepared children's records I have found that their ears are more sensitive than adults' to the subtler sounds of language. I still want to believe the other to be true, but recent experiences have made me "turn over a new leaf." Visual aids had better be used in developing cultural concepts rather than in picturing the "mouthing" of sounds.

—EMMA MARIE BIRKMAIER

Q *What is the best advice at the present for teachers of modern foreign languages?*

A A language teacher's program can be summed up in these formulae: (1) Get oral command of your language through study and practice here and abroad; (2) Seek out and experience personally the best thinking and the best teaching you can find in your field—at professional meetings and visiting other teachers' institutions; (3) Start with a simple machine—a tape recorder, for example—and use it, first by yourself and then with your class, until you are thoroughly familiar with it; (4) Put into practice in your classroom the best teaching and drill of which you are capable as soon as you have a clear idea of how to do it. *Don't put it off.*

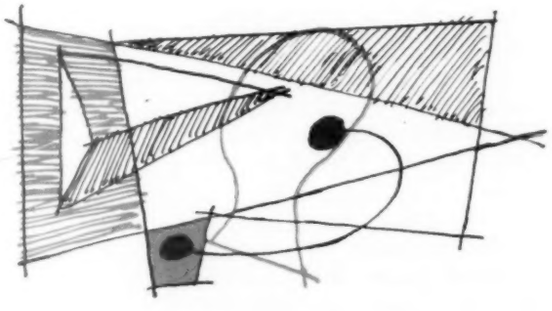
All of these activities, of course, can be started today, simultaneously, if you will. They can be inspired and undergirded by professional reading. (See Bibliography.) We recommend in particular: Patricia O'Connor's *Modern Foreign Language in the Secondary School: Prereading Instruction;* the 1959 Northeast Conference *Reports of the Working Committees;* and the Council of Chief State School Officers' *Purchase Guide.* —F. E. & E. H.

Administrative Problems

Q *What is the best advice for administrators and school boards who want to improve their language programs?*

A Too many teachers, on the one hand, and administrators and boards of education on the other, are content to settle on each other or on the taxpayer the blame for an unsatisfactory foreign language program. But it is the administrators and boards who really have it in their power to set the stage for the kind of language program that the national interest demands.

Administrators and boards can make a significant contribution by: (1) becoming informed from reliable sources; (2) taking the initiative in cooperative planning with teachers and citizens to make effective language training available; (3) encouraging teachers to throw off the shackles of superimposed planning, testing and evaluation based on traditional methods of teaching, and to experiment boldly and confidently with teaching modern languages for communication; (4) encouraging, even subsidizing, the further training or the retraining of teachers in oral competence and teaching methods; (5) providing for continuous planning, careful articulation, and constant evaluation under the guidance of a competent foreign language coordinator, and finally, (6) providing sufficient time in the students' and language teachers' schedules to implement the program. —ESTHER M. EATON



Q *Do electronic aids reduce the need of staff or increase it? Do they require specialized competence of the teaching or supervisory staff?*

A While audio aids help make language teaching more effective, they definitely do not reduce the need of staff. If drill periods are not scheduled by classes or groups under supervision of classroom teachers, then a laboratory assistant, technician, or released-time teacher will have to be provided, thereby increasing personnel.

Lack of integrated tapes and texts at the present time demands teachers proficient in the oral skills who have a thorough knowledge of the methods and techniques required to develop an effective audio-lingual approach to language learning, as well as some degree of competence in operating and maintaining electronic equipment. This knowledge may be obtained through reading, attendance at audiovisual workshops, language institutes, or visits to good installations already in operation. —ELAINE M. HARDIE

Q *Doesn't electronic equipment require additional special personnel such as an assistant to supervise students, a special maintenance overseer, etc?*

A-1 In most cases it is the teachers who do all the work. There is no use dodging the hard truth that the installation of electronic equipment puts a greater burden on the teachers the first year or so while new materials and procedures are being developed. At the same time it makes their efforts more effective by providing the means for amazing improvement in the students' performance. (New teaching materials must be developed if maximum effect is to be gotten from the equipment.)

Teachers should have released time for this work and, ideally, should have assistants for mechanical details such as helping students run equipment, repairing tapes, and running the machines while the teacher does corrective work with individual students. As for maintenance, this is usually done by outside repairmen. The need for an assistant and repairman is directly proportional to the amount, complexity and the fragility of the equipment. —W. N. LOCKE

A-2 Student monitors may be assigned for each drill session. They should be responsible for the distribution and filing of materials and the proper use of the equipment. All students should be held responsible for proper use and satisfactory condition of the equipment. —DON IODICE

Q *How can teachers be trained to understand and use the equipment?*

A A thoroughly qualified technician from the equipment company should demonstrate step by step the operation of the machines to all teachers using them. Every teacher should be given the opportunity to operate each

machine fully, including making a tape under the direct supervision of the technician. The teacher should also be allowed practice time to become thoroughly at ease with the equipment. He should practice making and playing back tapes before ever using the equipment in class or laboratory. Administrators responsible for foreign language programs should provide inservice training opportunities with consultant help and should urge participation in suitable college courses if at all possible.

—GENEVIEVE S. BLEW

Q *How can administrators organize the teacher's schedule so that he can use the electronic facilities to improve his own oral proficiency?*

A Some improvement can come from the teacher's personal use of the machines. For this he should be given released time in his schedule as well as other encouragements. Some teachers make amazing progress in this way, given good materials to work with, but such teachers are rare. The surest way to increase a teacher's oral competence is through inservice or summer study under excellent instruction, plus study and residence abroad. The use of machines and good materials following these experiences usually results in continued marked improvement. —F. E.

Q *How much does it cost to install a laboratory with 25 booths?*

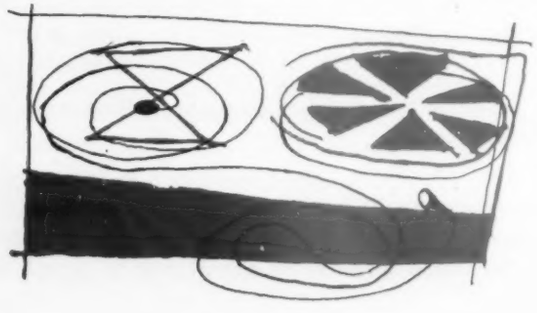
A It depends on the type of installation. The simplest electronic classroom (earphones only at each position, no booths) would probably cost $1700, perhaps considerably less. An electronic classroom with 25 convertible booths, each having earphones, microphone, and amplifier, but no recording facility, might cost from $3000 to $6000. A complete laboratory with individual recording facilities for all students and a master console might cost from $12,500 to $22,000. These are rough estimates depending on quality of equipment and details of installation.

—J. COLLINS ORR, E. S. RANDALL, AND F. E.

Q *How would a small school which cannot afford technicians meet the problem of maintenance?*

A Preventive maintenance can be learned by teachers or students. Repair needs can be handled by local radio-TV technicians, sometimes by hi-fi enthusiasts among the students. These persons must, however, be willing to acquaint themselves with the equipment and its use. Physics instructors are often willing to help. Factory service can be used when nearby or when no local facilities are available. (See also under Equipment.)

—J. COLLINS ORR AND E. S. RANDALL



Room Location Room Treatment and Furniture

Q *What is the best location for a language laboratory or classroom? What modifications need to be made in the room before installing equipment?*

A We quote from the CCSSO *Purchase Guide* on "room treatment":

"Each classroom or laboratory in which foreign language instruction and/or practice takes place should have the least possible background noise. This is important for a classroom where English is the language of instruction and recitation, but *for foreign language learning it is essential* that teacher and students *hear every sound distinctly*.

"Therefore these rooms should be located as far away as possible from noise outside the building (heavy traffic, playground, etc.) and inside (main corridor, cafeteria, or gymnasium).

"For efficient operation and supervision of class and laboratory work, it is important that all electronic classrooms (if there are more than one) be located near each other, that the laboratory or laboratories be located near the foreign language classrooms, and that the foreign language office be central to them all.

"Before electronic equipment is installed, the following basic provisions should be made in all classrooms, laboratories, and room areas (even for Listening Installations where possible) that are used for foreign language learning.

"SOUND CONTROL. There are two main purposes here, to insulate from outside noise and to keep inside reverberation at an optimum level. For the latter, an architect should be asked to measure reverberation time, and asked to advise on the proper measures to take. A *classroom* in which a loudspeaker is used even occasionally should be 'deadened' somewhat, but down only to a point that is good for both conversation and amplified sound. A *laboratory* in which little or no instruction or recitation takes place can be 'deadened' accordingly.

"a. *Doors* should be sound-resistant, and should close quietly and automatically.

"b. *Ceiling* should be acoustically treated.

"c. *Walls,* that are parallel blank walls, should be acoustically treated on one wall, or a curtain or drape cover as much as possible of it. Architects designing language classrooms and laboratories are encouraged to consider placing the walls slightly off parallel to reduce the amount of acoustical treatment necessary.

"LIGHT CONTROL. The control of light, too, is important. Here are some points to consider:

"a. *Window space* should be kept at a minimum to avoid distracting sights and sounds.

"b. *Venetian-type blinds* are most satisfactory for darkening.

"c. *Incandescent electric lighting* is least likely to interfere with the audio system, although with properly shielded wires and other components fluorescent lighting can be used.

"d. *Complete darkness* at any time is to be avoided.

"VENTILATION. In view of all the foregoing, and considering the heat generated by electronic audiovisual equipment, it is obvious that forced ventilation and, in many parts of the country, air conditioning as well, is a necessity for all rooms having such equipment."

—F. E. & E. H.

Q *How large an area is needed per unit?*

A The floor space required per unit is a variable which depends on several factors. The size of the booth is one factor. Its dimensions will depend on the space needed to house the equipment supplied in the booth. The extent of the writing space and book storage space likewise will directly influence the booth dimensions. The size of the booth in use today varies considerably. If, for example, you should employ a divided table top instead of booths, many more student positions could be made available in a given room area. I would suggest that 30 square feet per station (plus or minus two square feet) would give all necessary space including aisle area, distance between banks of booths, teacher's control area, etc. —J. COLLINS ORR

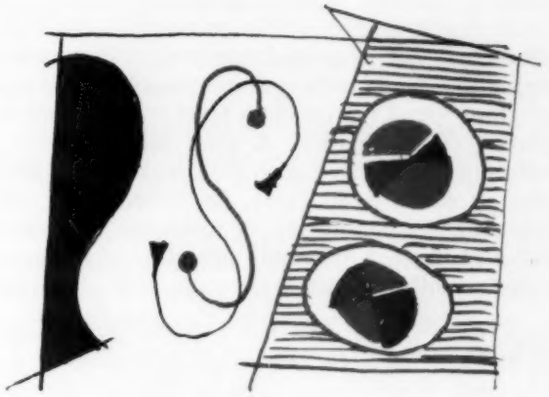
Q *How important are booths?*

A-1 Like earphones, booths are valuable for two reasons, acoustical and psychological. The exterior of the booth shuts out much of the ambient noise, and the interior, faced with acoustical material, absorbs some of the sound produced by the occupant's voice. Otherwise, bedlam would reign in the room, and satisfactory recording would be impossible. No less important than acoustical isolation is the psychological isolation. Adolescents are particularly self-conscious about making "funny noises" and "funny faces." With their classmates watching and listening, they may refuse even to try. However, booths and earphones provide privacy and stimulate uninhibited effort. Also, they make it possible for all students to perform at the same time, and for the teacher to hear and correct individuals (in person or by intercom) while all this is going on. —E. H.

A-2 On this much-debated question of the booth, a quotation from the CCSSO *Purchase Guide* presents a somewhat different point of view:

"It is possible to spend large sums on equipment, but it is also possible to provide the most essential equipment at relatively small cost. Minimum equipment will make possible the following two student activities: (a) listening to a model voice; (b) continuously imitating or responding out loud as the drill proceeds. Much of value can be added by further refinements, but these two activities are fundamental and indispensable.

"There is some opinion that questions the need for booths, especially for group work and for classes requiring complete supervision." —F. E.



Equipment and Costs

Q *Is it important to purchase "good" or "quality" equipment?*

A An installation should be designed to do the particular teaching job desired. The equipment should be of good rugged construction and characterized by simplicity of operation. However, it is important to make sure that adequate repair and maintenance are available. Personally, I consider repair and maintenance perhaps more important than initial equipment purchase. Specifications should contain very clear and specific statements regarding equipment guarantees and repair and maintenance requirements or provisions.

—WILLIAM B. SANBORN

Q *Are tapes superior to commercial discs?*

A Discs, because they are played by physical contact with a needle, get noisy and wear out even with the best of care. Tapes are superior in this respect, and can be played thousands of times without noticeable deterioration of sound quality. Their signal-to-noise ratio and frequency response is better. However, tapes will not produce good quality sound if they, and the machines they are played on, are not kept in good condition. Tape recordings, unlike discs, can be easily tailor-made to suit one's needs, and can be edited or erased at will. As for the question of finding the exact part to be replayed, some people can "spot" a passage visually on a disc with great ease; others have uncanny accuracy in the same operation using the fast forward and rewind of a tape playback. Some disc instruments have precise measuring devices; some tape players have numbered meters which serve the same purpose. The rapid location of the part sought, on either, is a matter of good equipment, and of experience in handling it.

When it comes to student materials for home study, the advantage of the disc is obvious. Many homes have a disc player, only a few have a tape playback.

—F. E. & E. H.

Q *Suppose we can't afford recording and playback for every student, is just listening equipment worth installing?*

A Probably, but remember that if your classroom is equipped as a good *practice room,* you will get far more satisfactory sound reproduction from it than from any earphones on the market. A good practice room is acoustically treated, has a good loudspeaker ($25 plus), a tape recorder ($150 plus), or record-player with built-in amplifier ($50 plus), or turn-table and outside amplifier ($75 plus). The only advantage of earphones is to shut out other sounds in the room. —W. N. LOCKE

CONSULTANTS' NOTE: We feel that the last sentence could be amplified to say that earphones induce a compelling sense of isolation or privacy. This psychological isolation is perhaps more valuable than the acoustical isolation. A loudspeaker is considered a public address system; earphones seem to provide person-to-person communication, like a telephone receiver.

On the main point of this question we feel that listening equipment is definitely worth installing if funds are not available for facilities beyond that.

—F. E. & E. H.

Q *How important is it that each student in a class be equipped with earphones?*

A Earphones completely cover the ears, shut out ambient sound, and thus prevent distractions. *Good* earphones (not those commonly provided with recorders) transmit sound adequately (up to 8000 cps), although admittedly a superior loudspeaker system will do better. The unique advantage of earphones, in addition to excluding unwanted sounds, is the intimate sense of privacy which they provide. The wearer feels that "this is for me," and is stimulated to respond as he would in a conversation. Such motivation is priceless, and easily justifies the provision of earphones for every student whenever possible. Finally, speaking again of acoustical isolation, earphones insure that every student, no matter where he sits, hears well. —F. E. & E. H.

Q *How valuable is the activated headset (with microphone) which sends the voice simultaneously and directly back to the student's ears, but without recording and playback?*

A-1 The relative simplicity and low cost of these devices make them attractive. They cost comparatively little per student position, and since the individual students do not have tape recorders, the operating and maintenance costs can be expected to be low. If the best quality components are used, fidelity can be excellent, though in many installations microphones and earphones are of inferior quality, with resulting poor performance. Pedagogically, these installations can be far better than mere listening to a loudspeaker. The earphones give relative privacy so that all students can speak simultaneously. The effect gained is exactly that of a singer in a chorus who uses his hands to cup the sound from his mouth to his ear so he can hear his own voice. This device is in no way analogous to or a substitute for recording and playing back the sound, as any actor or musician will agree. —W. N. LOCKE

A-2 In reference to the use of activated headsets, the question may be asked: How are the persistent mistakes noted and corrected? This is the function of the teacher or the lab monitor. He can either criticize tape recordings made periodically by the student or he can monitor him as he works, correcting him on the spot or making notes for a personal corrective session. Since hear-back units cost half as much as tape recorders they bring the essential function of the language laboratory within range of the budgets of many more institutions. —GEORGE BORGLUM

CONSULTANT'S NOTE: Even the manufacturers of these devices admit that each student should be enabled regularly to record and play back his own performance. "How often?" is a question that needs an answer based on research. Implicit are other questions: (1) What is the influence of the inevitable hearing-by-bone conduction on the hearing through activated headset? (2) How successfully can various students combine remembering (of auditory stimulus), careful imitative speaking (in response to the stimulus), hearing (what they are simultaneously saying), and criticizing and comparing (with the stimulus model)?

Meanwhile, purchasers of activated headsets should also buy a fair number of recorders and make certain that the activated headsets and microphones are electronically compatible with these and still other recorders to be purchased from time to time. In this way a complete laboratory can be gradually developed, with no waste of equipment. (See also "How often should a student record his own voice?" page 208.) —E. H.

Q *Is a dual-channel tape recorder better than a standard half-track recorder for individual student use?*

A First, a clarification of terms: The ordinary, readily-available tape recorder is standard half-track. This is the machine with which most teachers are familiar. In addition, several companies manufacture a special "dual-channel" recorder which allows two sound tracks to be used simultaneously. For languages, this means that the master voice is found on one sound track, while the student records, compares, and re-records on the second track.

The manner in which the equipment is used will determine which machine is most advantageous. When the students work as a group in the laboratory, standard half-track or full-track may be most economical, provided that the sound of the master voice is supplied to each student recorder by means of a teacher control center. The dual-channel machine is best for individual student work. Inasmuch as the master voice is recorded on one track of the work tape, the student may work independently, at his own pace. He cannot erase the master voice, although he may record and erase his

own as often as he wishes. The greatest disadvantage of this machine may be cost: approximately 20 percent higher than an average priced standard machine.

—DON IODICE

Q *What tape speed should be used?*

A-1 This depends on the design of the machine. Most inexpensive tape recorders have better fidelity when played at 7½ inches per second. Some high quality machines provide better fidelity at 3¾ inches per second than others do at 7½; so the best speed depends on the available equipment. —W. N. LOCKE

A-2 A tape recorder gives not only better frequency response but better flutter and wow characteristics at 7½ ips than the same machine would give at 3¾ ips. A perfectly adjusted and maintained machine at 3¾ ips will give satisfactory results but has no safety margin, so that the slightest "drifting" of the adjustments results in unsatisfactory performance. On the other hand, the 7½ ips speed gives superior performance with a great safety margin, so that even after minor "drifting" of the adjustments, the performance is still satisfactory. —JOHN H. PERKINS

Q *What specifications are recommended for the various items of electronic equipment?*

A We quote the following figures from the CCSSO *Purchase Guide* specifications. For ease of reference and because of space limitations, these figures have been set up here in tabular form. As a result they are incomplete and to some extent out of context. For full information, refer to the specifications in the *Purchase Guide*. The figures represent reasonable expectations, considering the fluid situation at present. Higher standards may be specified in later editions of the *Guide*. —F. E.

Item of Equipment	Frequency response. At least:	in cps. ±db:	Flutter & wow. Not to exceed:	Harmonic distortion. Not to exceed:	Signal-to-noise ratio. At least:
Amplifier, pre-amplifier (Student)	75-9000 *50-12,000	2 2		3%	50 db
Amplifier (Control center)	50-12,000	2		2%	50 db
Disc playback (Phonograph)	50-12,000	2			
Earphones	100-8000				
Loudspeaker	75-9000 *50-12,000				
Microphone (Master recording)	50-12,000				
Microphone (Student)	75-9000				
Tape recorder (Master)	50-12,000	2	0.3% *0.2%	2% *1%	45 db *50 db
Tape recorder (General use)	75-9000	2	0.4%	3%	45 db
Tape recorder (Student)	75-9000	2	0.4%	3%	45 db

*Preferable

Q *Is there a good lightweight portable tape recorder for classroom use in language teaching?*

A No. Unfortunately, weight and good quality pretty much go hand in hand. The light portable machines usually operate at a very slow tape speed and have such poor overall quality that they seriously distort or completely drop out many consonants, though they still have intelligibility enough for use as dictating machines, for which they are intended. —W. N. LOCKE

Q *Some machines use cartridges rather than tape reels. What are the advantages and disadvantages of this system?*

A The advantages of cartridges rather than tape reels as I see them are: (1) Less skill is required to insert and remove cartridges; (2) There is less possibility of tangling, tearing, and doing other damage to tape; (3) The cartridge-housed tape will repeat itself indefinitely without rewinding or other attention; and (4) Cartridges are particularly useful for playing very short selections which would have to be recorded several times on ordinary reels in order to avoid excessive work and loss of time in rewinding.

I would put present disadvantages of cartridges as: (1) The initial cost is much greater; (2) With most present equipment it is usually best for the student to have maximum control of the material he is working with. Cartridges cannot be reversed for the replay of small segments of the tape; and (3) Despite recent improvements there is still evidence that some cartridges are not mechanically perfect and have to be discarded because the tape "binds." —A. B. GAARDER

Q *How can I operate the mechanical and electronic devices expertly? Do I have to be a "mechanic" to run the equipment?*

A The only way to operate expertly is to read with great care the manual which accompanies the equipment, perform each step of every operation until you know it so well you can do it with your eyes shut. It helps to be mechanically inclined, but if you can drive a car you should be able to operate a tape recorder, and cooking is ever so much more complicated. The "secret" for everyone is to work alone with the equipment until every movement becomes automatic.

—W. N. LOCKE

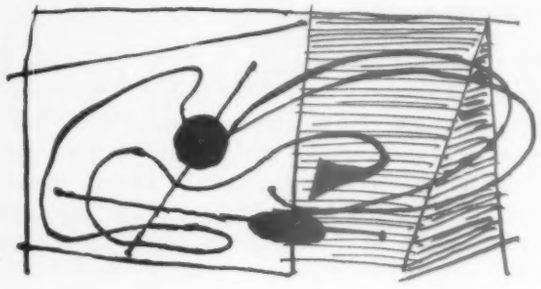
Q *How regularly should the equipment be checked? What devices are needed? Do servicemen need special training?*

A It is imperative that provision be made for routine preventive maintenance. Some parts of the equipment should be checked regularly every week, some every semester, others every year. For example, on the recorders which are in constant daily use, the recording and erase heads should be cleaned every day. Manufacturers' service manuals plus experience should reveal what equipment needs the regular routine maintenance and how often. Certainly every tape recorder should be completely checked and overhauled once annually. In any case routine checking, instead of waiting for breakdowns, will definitely prove more efficient and economical. In decreasing order of importance, the following test equipment is useful to the proper maintenance of any language installation: (1) vacuum tube voltmeter;

(2) audio oscillator; (3) AC vacuum tube voltmeter; (4) oscilloscope; (5) harmonic distortion analyzer; (6) audio analyzer; (7) tube tester; (8) flutter bridge.

Servicemen should have adequate knowledge of audio amplifiers, the circuitry involved, and the ability to follow wiring diagrams. At college level this knowledge is usually found in students with electronic training gained during their experience in the armed service, among hi-fi enthusiasts, and electrical engineering students. Of course, cooperative staff members in the physics and electrical engineering departments can also be of help. Very few people have had any previous experience with the tape transport mechanisms used in tape recorders. However, the service manuals available with the equipment, and experience gained on the job, are usually adequate for good service work on this part of the machine.

—J. COLLINS ORR



What About Materials?

Q *Where can I find good teaching materials for class and machine use?*

A The Foreign Language Program of the Modern Language Association is publishing in September a *Materials List* for the teaching of those languages commonly offered in American schools. The list includes recordings and visuals as well as books and other materials. Requests should be addressed to: Foreign Language Program, Modern Language Association, 70 Fifth Ave., New York 3.

By way of further comment we quote from the CCSSO *Purchase Guide:*

"There is an almost total lack of adequate teaching material suited to the new methods being adopted in modern foreign language teaching. Traditional 'book-centered' materials, even when accompanied by recordings, are never more than half satisfactory. We may as well face it, there will be several years of trial and experimentation before adequate material will be generally available. Meanwhile, teachers and administrators should be patient, reserve judgment on the effectiveness of electronic installations, and not expect them to produce as good results as they will certainly produce when equipped with good materials. As this *Purchase Guide* goes to press, some individuals, publishers, schools, and school systems are planning to create new class and laboratory materials. Those in charge will do the profession a great service if they will send specimen materials and a brief description of their projects to both of these information centers: Foreign Language Program, The Modern Language Association, 70 Fifth Ave., New York 3; and Dr. Marjorie C. Johnston, Specialist for Foreign Languages, Office of Education, Washington 25, D. C."

—F. E.

Q *What kinds of recorded materials are needed for use with the machines?*

A-1 This is a crucial matter. Its importance to effective language learning can hardly be exaggerated. We list first several kinds of recorded materials (with the student activity in parentheses): for listening only (the student builds up aural comprehension and "speaking readiness"); for repetition (the student mimics what he hears, drilling good pronunciation and other elements of good language habits); for manipulation of forms and patterns (here a great variety of exercises is possible, ranging from drilling a verb tense to a complex question-and-answer sequence); for testing (see the answers by Paul Pimsleur under "Evaluation," pages 210-11).

Secondly, we point out that oral drills and exercises are quite a different thing from those found in the traditional textbook. For examples we refer to Patricia O'Connor's *Modern Foreign Languages in the Secondary School: Prereading Instruction,* and the sections on pattern practice in the 1958 and 1959 Northeast Conference Reports (see Bibliography).

—F. E.

A-2 A variety of exercises should be used during each laboratory period. Drills should be prepared in a manner which will require the student to concentrate on *meaning* as well as *pronunciation*. Text books should be closed during most of the laboratory session. Aural-oral proficiency is gained through oral practice, not reading. Only vocabulary and idioms of the highest frequency should be used, and limited to a small number of new items per lesson. Previously learned vocabulary should be repeated frequently in later laboratory periods. In a language laboratory, there should be several opportunities during the period to play back the recorded exercises, but to avoid monotony each playback should be brief (not more than three or four minutes).

—C. R. JEFFERS

Q *What criteria are useful in selecting pre-recorded or in preparing recorded materials?*

A-1 Both types should be technically well recorded, and the language should be authentic and typical of conversation by cultivated native speakers. The speaker should not slow down or yield to the temptation to talk like a book. (For example, some speakers on French discs use the past definite tense.) When choosing materials for your own recordings, assume that students will keep their books closed. (Otherwise the printed word will override the spoken one.) Mere listening to the verbatim recording of the students' textbook is rarely profitable; interest lags unless some variation is introduced with questions to follow.

In general, frequent student responses are necessary to keep attention at high level. Each response should

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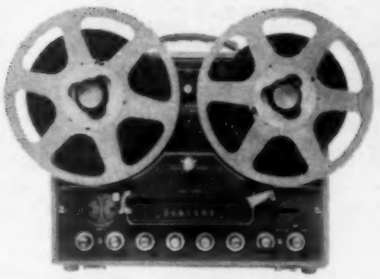

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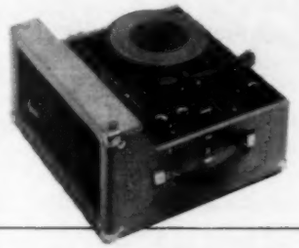

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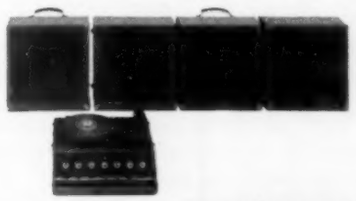

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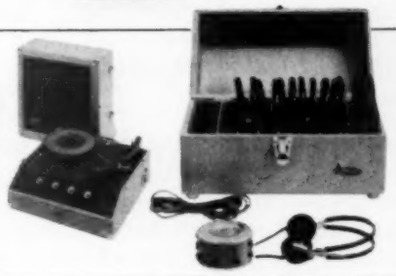

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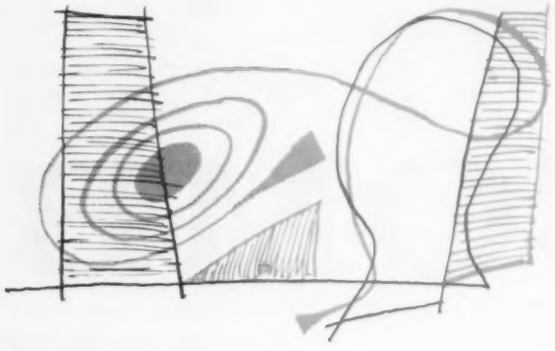
be immediately followed by the master voice giving the correct response, thus correcting or corroborating the student. Such drill should not, after the initial stages, involve mere repetition. Questions and pattern drill, using the principle of minimal-step progression, can involve dozens of variations. A good recording voice (or "personality") is essential. The voice must be pleasing, alert, interested and interesting. A soporific voice will induce sleep in any language. —E. H.

A-2 When recordings are made, reading from a printed or typed page almost invariably results in unnatural speech—unless the voices are unusually well trained or coached. In addition to *speed* (mentioned above) there are many other pitfalls, the worst of which is *intonation*. Listen, for example, to the question intonations; if they are all rising at the end, it is reasonably certain that the recording was made by voices poorly trained or coached. (Rising intonation usually calls for a Yes or No answer. A great many question intonations fall at the end.) A feature such as *liaison* in French can be very revealing: if it is used too frequently you can be sure that here again is unnatural speech.

—F. E.



Techniques

Q *Are not the improvements seemingly wrought by electronic installations really attributable to the greater effort and energy expended, and to the enthusiasm engendered by new equipment and novel techniques? If so, will not these effects deteriorate with familiarity to a point of no more stimulation than a textbook? In short, how is motivation introduced and maintained in the use of equipment?*

A First, the instructor must be sure that the student understands the purpose of the equipment, that it is a drill master and not a fascinating toy. He must prepare the student to expect much repetition and even fatigue from a good "mental workout" in his drill period. He should impress on the student that, as in learning any skill in sports or music, language learning is also the development of a skill and requires consistent practice. Second, the instructor must prepare the student for the work and give him a purpose for learning whatever he may find on the recording. A suitable conversation involving the recorded material is one way of doing this. During the class following machine drill, the instructor must check on the work done: perhaps hold a conversation involving the pattern studied, perhaps an oral test. The former reminds the student of the purpose of the drill; the latter provides an immediate incentive for learning. Both are necessary.

Third, the drills may be varied, but not too much. In a drill period of 30 to 40 minutes, the student may work with several exercises, perhaps a pattern drill on a point of grammar, plus the oral presentation and repetition of a reading lesson, plus questions and answers on this material. Students can both enjoy and learn a song or a poem on tape, provided it has been developed first in class.

Fourth, the period of machine drill should not be too long. Fifteen to 20 minutes several times a day is better than one 60-minute period. If the latter cannot be avoided, then after each 15 to 20-minute period the student should take a break, walk around the room or even leave for five minutes. Fifth, the instructor must prepare the tape exercises skillfully so that they gradually increase in difficulty and so that the student is constantly forced to exert a certain amount of effort to do them well. Finally, the tape is a textbook—an oral one—and serves the same purpose for aural-oral work that the written text serves for reading and writing. If it is a good oral textbook, preceded and followed by good teaching, it will be stimulating.

—Louise Winfield

Q *What is a good division of class time? How long can students drill (listen and respond) without reaching the point of no gain or mental fatigue?*

A On the junior high school level, 10 to 12 minutes of concentrated drill seems to be about all the student can take. I should think that high school students could profit from 15 to 18-minute sessions. There is a variable here in that the type of lesson makes a lot of difference. A drill on grammar forms only, for example, will tire the students quite rapidly. A passage to be memorized will sometimes be practiced two or even three times in a row by the same students, constituting a lesson of well over 30 minutes. —Lester McKim

Q *How many times a week should a student use the equipment? What seems to be the minimum for good results?*

A The nature of the work determines the optimum frequency. To teach active control of the language, that is, when the drill involves listening and responding, or listening, responding and recording, best results are obtained by frequent short practice sessions. The best schedule would allow 15 to 30 minutes of drill daily. If the exercises are sufficiently short, several repetitions may be possible in this time. If the student is required only to listen without responding, then a minimum of one period each week may suffice. Here the student may develop skills in listening comprehension. To learn to speak he must spend time on drill and active use of the language, both of which cannot occur in a listening installation. Whatever the schedule, drill sessions should not be longer than 50 minutes. Fatigue and short attention span may actually hinder learning when the work is prolonged further. —Don Iodice

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Q *How often should a student record his own voice?*

A-1 Not having a statement from the proponents of substituting the use of activated earphones for recording and playback (substituting in large part, not wholly, as we understand it), we refer to Professor George Borglum's article, "Consign the Mistake to Oblivion," in the *Maine FL Program Newsletter* for May 1959. The principal points made are: (1) The simplest listening installation with dead (not activated) earphones brought "a solid, measurable gain in student achievement"; (2) Machine drill is most useful to the elementary student; (3) The elementary student is least able to criticize his own performance; (4) Playback by an elementary student is largely a waste of time; (5) The saving of playback time makes it possible to repeat an exercise more often; (6) "Since we recognize the principle of unconscious memorization we have always been uneasy about the student memorizing his own mistakes," Professor Borglum writes. "Instantaneous self-monitoring of unrecorded speech concentrates on imitation of the correct form while consigning the mistake to oblivion." —F. E.

A-2 This is a moot point. Until very recently it was commonly assumed that recording and playback were a unique and highly valuable learning experience, and should therefore be used daily. Now comes the suggestion that it is a form of testing rather than learning, and that it may be used only occasionally. For the learning experience, it is proposed that the activated earphones be substituted for recording and playback. Clearly these are two different things, and there is, as yet, no proof that they are interchangeable. Research is needed, and will doubtless be undertaken. Meanwhile, the teachers who consider that recording and playback provide a unique and valuable experience in learning and self-criticism will use it as frequently as their facilities permit. —E. H.

Q *What are the advantages and disadvantages of the language laboratory as compared to the electronic classroom?*

A The laboratory provides recording and playback, enabling the student to hear his own voice with complete objectivity and to give his undivided attention to a comparison of his responses with the model voice. This is a unique experience, and a highly valuable one. Expert teacher guidance can enhance it by training the student to listen for certain fine distinctions of sound. It also provides individual manipulation of the listen-record-playback facilities, thus accommodating individual differences in rapidity and method of learning and kinds of materials needed.

One disadvantage is, of course, that additional equipment involves more time invested and more expense in cost and maintenance. However, as in science laboratories, the results seem to justify the cost. And the per-student cost is less than for science (or athletics, for that matter). Other disadvantages are that constant teacher supervision is impossible, and only well-trained and well-motivated students—usually older ones—are able and willing to get full value out of individual laboratory work. —F. E. AND E. H.

Q *Should audio aids perhaps be limited to the self-training of the teacher in the elementary grades?*

A Audio aids should be a major help in self-training of the classroom teacher but should not be limited to the teacher alone. Nor should the audio aids which the teacher uses be the same as those used for the children. Let us assume that the teacher is an American with limited facility, if any, in the foreign language. Her own tapes and materials should be more rigorous, with detailed drill and emphasis on conducting classroom experiences in the foreign language. Such a teacher may well attain near-native audio-lingual ability, but rarely that of the native. Therefore, children should not get their foreign language second hand when electronic equipment and materials can give them first-hand language experiences. This is extremely important at the elementary level where skill learning must be presented authentically from the very beginning.

Foreign language tapes and records made for the elementary grades can open up new worlds to children. Motivation is immeasurably enhanced. Children are eager to listen and to learn from other voices than the teacher's. This is especially true where the teacher exchanges tapes with children of similar age from the country whose language is being taught, and when the recordings use children's voices. —EMMA BIRKMAIER

Q *Do the discipline problems incidental to the use of electronic equipment counterbalance its value as a teaching and learning aid in the elementary and secondary school?*

A The discipline problems arising in a classroom are of course part of the total pattern, so it is difficult to state baldly that any one factor, be it new technique or mechanical device, is of itself cause or cure. Some pupils will undoubtedly find the mechanical devices more fascinating than the language, but these pupils may easily be the ones who in the past have preferred the peregrinations of a fly on the ceiling to the development of a new sentence pattern. Then there are those who may be inept or uncoordinated, who will have difficulty with the mechanism; but this problem is being overcome by the manufacturers, who are constantly simplifying the equipment and making it even more child-proof. Again, the problem children here are the same pupils who in other classes stumble over their own feet and drop all their books as a matter of routine.

I believe that in most cases the electronic equipment is a tremendous help to the teacher in solving classroom difficulties. For one thing, the pupil achieves what we can call psychological isolation. By means of earphones, which allow neither extraneous noises nor escape from the teacher's voice, the pupil soon finds himself in a one-to-one relationship with his teacher. Also he finds that the teacher's voice (recorded) will patiently repeat time after time the material to be learned, and each time, the teacher's voice is filled with equal enthusiasm. Then, if the pupil has a question, he has only to raise his hand, or flick a switch, and his teacher is at his side in person

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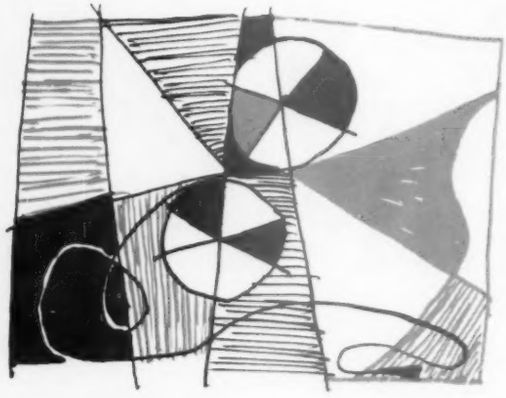
or is talking with him over the intercom. If he does find himself distracted in spite of all, he again finds the teacher (no longer chained to her desk) free to exercise the necessary control, to encourage, to lead, to recognize him as an individual. —RITA BARROWS

Q *How can students be trained to understand and use the equipment?*

A They can be trained by being shown and then by practicing under proper supervision. The first period should be an orientation session. Students should be told what skills they are to acquire and how the equipment will help them. They should know how they are going to be tested on drill work done. This is to make them feel the importance of drill, and to interest them in the advantage it will offer them. Careful explanation and demonstration of the equipment at the outset will save time later on. The time needed for this will of course depend on the complexity of the installation. In a laboratory of 15 booths where each student is handling a tape machine, I have found that half an hour is not too long. The student must learn not only things to do but also things not to do. Most American students are sufficiently gadget-minded to catch on quickly.

—JOHN B. ARCHER



Evaluation

Q *Is there any measure of the effectiveness of electronic equipment?*

A I do not know of any specific research which has been reported as measuring quantitatively the effectiveness of these facilities. That electronic facilities do increase the rate and amount of learning of aural-oral skills is evident from the rapidly increasing use of such installations during recent years. Probably the most valuable research will be that which will identify the *specific* activities or techniques bringing the greatest results.

—FRANK GULICK

Q *Isn't electronic equipment a waste of money and time with the present textbooks and courses of study?*

A If the present textbooks and courses of study produced the desired results, the use of machines would not now be making its appearance so widely, nor be welcomed so enthusiastically by thousands of schools. Alone, the equipment is not the answer, either. However, if it is used wisely, even with current textbooks and methods, equipment may very well be the factor which brings success. The use of electronic equipment can prevent or solve certain problems:

1. *The shy child who fears to speak the language in class.* He will not mind doing it, isolated by earphones or a booth, and eventually he will gain the courage to participate in class conversation.
2. *The child who misses part of the work.* Busy teachers cannot spend much time bringing absentees up to date. Machines can work indefinitely.
3. *The easily distracted child.* The mechanical setup and enforced frequent participation required by machine drill keep his attention on the lesson.
4. *Errors by individuals.* The teacher can correct these without disturbing other pupils. Contagion is thus prevented, and pupils will not catch errors from each other.
5. *The class with wide extremes of ability.* Varied groups can work on different materials at the same time in the same room.
6. *The teacher who misses classes.* In an emergency the children can continue much of their work by spending more time with the machines, if proper materials and notes on their use are available.
7. *Dependence on one teacher's resources.* The use of recordings widens the child's learning opportunities, copes with individual problems without time loss to others, and provides a much greater variety of learning experiences than the average language class has been able to do.
8. *Dependence on one teacher's pronunciation and diction.* Recordings can bring any number of new voices to the students' ears. —VERA L. PEACOCK

Q *What criteria shall be employed to measure progress in language usage and fluency?*

A These remarks will deal with tests of listening comprehension and speaking. Teachers may test listening comprehension by reading a paragraph to the class twice, at normal speed, and then asking questions about it. Answers to the questions may be written, or may be spoken and recorded. In scoring, place the emphasis on whether or not the student has grasped the meaning of what was said, rather than on the grammatical correctness of his response. A standardized test of listening comprehension exists in French, German, and Spanish (published by the Educational Testing Service, Princeton, N. J.). Teachers will do well to examine the ETS test and adapt its methods to their own situation. A different test of this ability, the Pictorial Auditory Comprehension Test, is now being prepared for a number of languages by John Carroll (Harvard) and myself.

To test speaking ability, the teacher should try to analyze the students' spoken performance into a number of parts, rather than just grading on "how well" he

spoke. For example, separate and independent scores should be given for pronunciation, grammatical correctness, fluency, and perhaps originality. These scores can then be combined into one overall grade on speaking proficiency. Compare also the Colgate test (see article by Stabb, *Modern Language Journal,* May 1955), and a test reported by W. V. Kaulfers *(MLJ,* February 1944). I have prepared a standardized test of speaking proficiency for French. Another recent speaking test is that of Nelson Brooks (Yale).

It must be stressed again and again that the teacher who does not allow a large place in her marking system for listening comprehension and for speaking proficiency is simply marking her students unfairly.

—PAUL PIMSLEUR

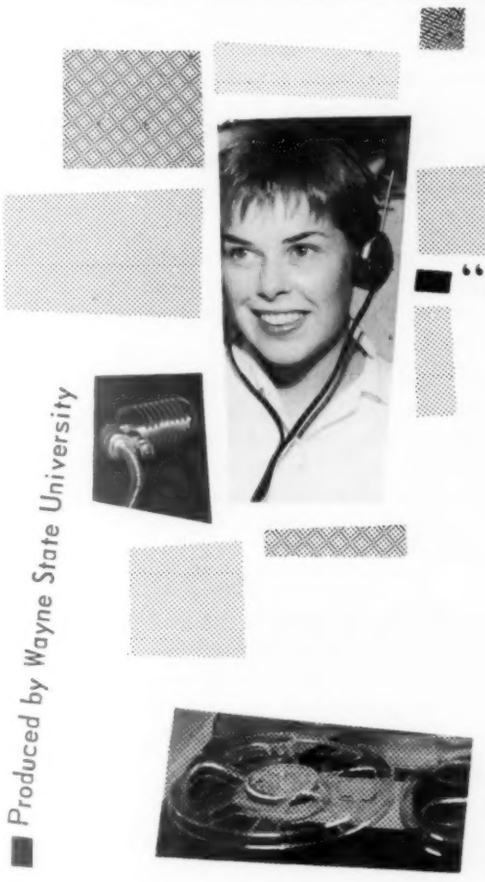
Q *What standards should be attained?*

A It is not possible to prescribe here what achievement should be expected at each successive level of each language. Still, certain general considerations may be mentioned. Elementary language students cannot be considered to "know" something unless they can produce it aloud, correctly, easily, and with a good accent. The ability to write things down in the foreign language is not enough. Thus the emphasis at each level of study should be on the complete assimilation of a limited body of material. Greater scope can be attained by the process of generalizing by analogy, in which the student creates new utterances, similar in structure though different in content from those he has learned. Thus, progress at various stages should be measured not by the number of lessons covered, but by the student's readiness to produce utterances which utilize the grammar and vocabulary that have been studied. Standards should be established to reflect an ever-increasing command of the spoken language. —PAUL PIMSLEUR

Q *If more emphasis is put on oral work and the grammar suffers, will the colleges revise their entrance requirements accordingly? How many periods a week can the student devote to oral machine drill and still prepare himself to pass the college boards?*

A Beginning in March 1960 the College Entrance Examination Board will include listening comprehension tests in modern foreign languages in its regular testing program. This along with other developments shows the current trend of thought on the question. The root of all aspects of language is the spoken word. Without extended practice in it, most students never learn to handle effectively any aspect of language, spoken or written.

A student who has good preparation in the spoken language should be encouraged to go to a college whose language program is adequate and receptive to the full scope of his skills, abilities, and interests. (For a more extended answer to these questions, including a special report on testing, see the 1959 Northeast Conference Reports. Their focus is a minimum interim program for the six-year sequence, grade nine through the second year of college.) —F. E.



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Bibliography

A CAREFULLY PREPARED BIBLIOGRAPHY in this field has recently appeared in print. We refer to "Twenty Years of Modern Language Laboratory (An Annotated Bibliography)," by José Sánchez in the *Modern Language Journal* for May 1959, pages 228-32. In addition, with no attempt to be exhaustive or even fully representative, we list here some of the recently published writings mentioned in the foregoing pages plus others we think important. Entries are classified under two headings: Foreign Language Teaching and Curriculum (an understanding of which we consider absolutely basic to any discussion or use of the machines), and Electronic Installations (giving information and advice about the machines).

—F. E. & E. H.

Foreign Language Teaching and Curriculum

Johnston, Marjorie C., editor. *Modern Foreign Languages in the High School.* U. S. Department of Health, Education, and Welfare, Office of Education, Bulletin 1958, No. 16. Washington, D. C.; Superintendent of Documents, Government Printing Office, 1958. 166 p. $1.

(Increased need for foreign languages; Status of foreign languages in the high school; Changing character of foreign language teaching; The newer objectives and evaluative techniques; Teacher preparation and professional growth; Responsibility for improving the high school program; The MLA statement of qualifications for high school teachers of modern foreign languages.)

Kameneff, V. V. "Many Flags—Many Tongues." *Audiovisual Instruction* 3: 36-39; February 1958.

(Shows how ideas about teaching languages changed with the development of audiovisual aids at Supreme Headquarters Allied Powers Europe. Author describes what happens when teachers approach the written and the spoken as two different languages.)

Lloyd, Donald J. "Language in a Living Environment." *Audiovisual Instruction* 3: 40-41, 60-61; February 1958.

(The language laboratory at Wayne State University described from the point of view of its three functions at that time: day-to-day instruction, research in language teaching, and demonstration of a laboratory in operation.)

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National Association of Secondary-School Principals. *Modern Foreign Languages in the Comprehensive Secondary School.* Preprint from *The Bulletin* of the NASSP, June 1, 1959. Order from NASSP, 1201 Sixteenth St., N. W., Washington, D. C. 16 p. First 10 copies free; additional copies 15 cents each with 20 percent quantity discount.

(The importance of modern language study; An effective approach; The place and kind of modern language; Steps the principal can take to implement these recommendations.)

Northeast Conference on Teaching of Foreign Languages. *Reports of the Working Committees, 1958, 1959.* Order from Nelson Brooks, MAT Program, Yale University, New Haven, Conn. $2.50 each postpaid. The *1959 Supplementary Reports,* $1 postpaid.

(1958: See especially "Patterns as Grammar." 1959: *Working Committee Reports.* Modern foreign language learning, assumptions and implications; A provisional program: a six-year sequence from grade nine through the second year of college; Elementary and junior high school curricula; Definition of language competences through testing, *Resolutions.* See especially "Latin and Modern Languages." *Appendices.* MLA statements on college foreign language degree requirements, on qualifications for teachers, on preparation and certification of teachers; table of contents of Northeast Conference Reports, 1954-58.)

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(See next page)

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AMPLIFIER CORPORATION OF AMERICA, 398 Broadway, New York 13. Tape recorders and amplifiers. The Magnemite Portable (battery-operated, spring motor).

AUDIO-TEACHING CENTER, INC., Audio Lane, New Haven, Conn. Convertible language audio teaching unit.

BELL SOUND DIVISION, 555 Marion Road, Columbus 7, Ohio. Tape transport mechanism (recording and playback).

BELL & HOWELL, 7100 McCormick Road, Chicago 45. Tape recorders.

BRUSH ELECTRONICS CO. (Division of Clevite Corp.), 3405 Perkins Ave., Cleveland 14, Ohio. Headphones.

CALIFONE CORPORATION, Hollywood 38, Calif. Language laboratory components and complete booth installations.

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DAVID BOGEN CO., Paramus, N. J., Record players, tape recorders.

EDUCATIONAL LABORATORIES, Division of Reed Research, Inc., 1048 Potomac St., N. W., Washington, D. C. Educorder Dual M6A. Can record and play back binaural, or record on one channel while listening to other.

ELECTRONIC TEACHING LABORATORIES, 1818 M St. N. W., Washington 6, D. C. Laboratory equipment. The Monitor (dual channel language machine, portable and console models.)

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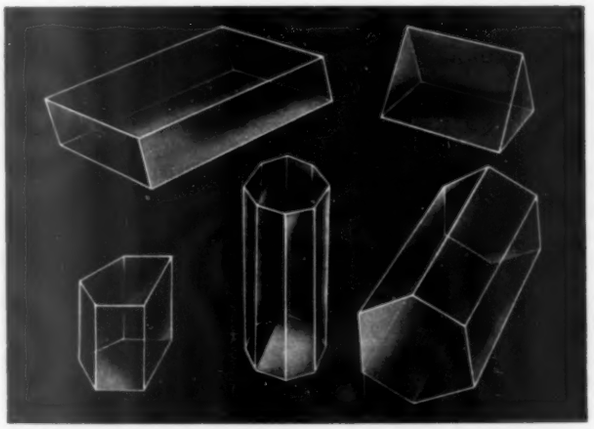

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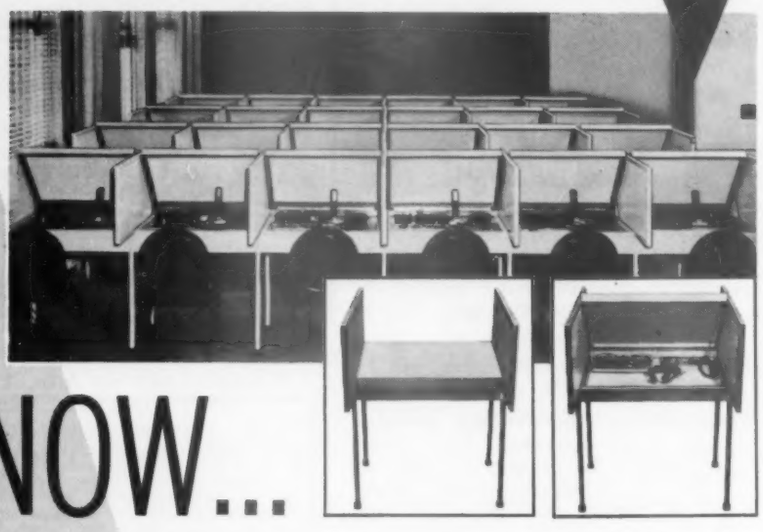

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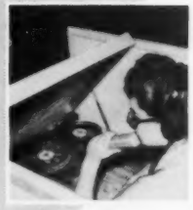

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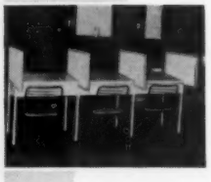

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*Between 212°-250° (boiling water is best)

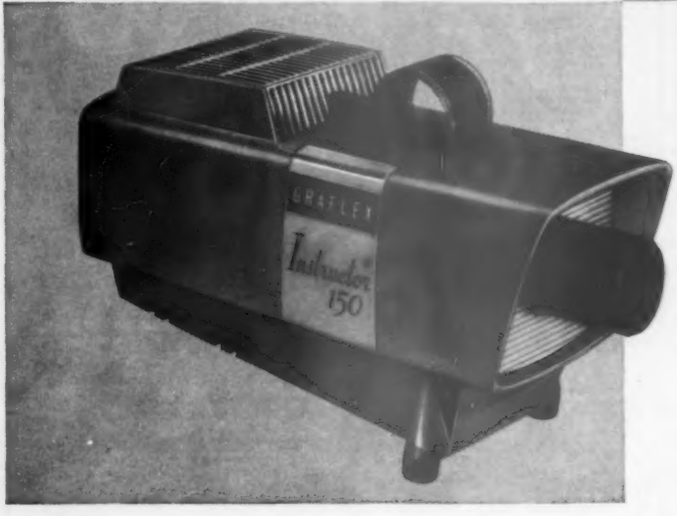
Teaching is easier, learning more fun with a GRAFLEX-SVE SCHOOL MASTER *Filmstrip and Slide Projector*

SCHOOL MASTER 750 SHOWN WITH ACCESSORY REWIND TAKE-UP AND SEMI-AUTOMATIC SLIDE CHANGER

Because the School Master gives you such brilliant projection (even in a partially lighted room), your class can see vividly what you are talking about. Your teaching materials are presented with maximum effectiveness and impact. Makes it easier for you to teach . . . more fun for your classes to learn.

The School Master converts from filmstrip to 2" x 2" slide projection in seconds, without tools or removal of parts. Threading and framing are simple and fast. Entire optical system removes as a unit for cleaning or replacing of lamp. Exclusive built-in carrying handle provides easy portability.

School Master Projectors are priced from $84.50 and are available in 500 watt and 750 watt models, manual or remote control. Exclusive accessory Rewind Take-Up allows filmstrip to be rewound automatically into storage container; only $7.50. Fits all School Master models.



NEW! A GRAFLEX FILMSTRIP PROJECTOR

TO MEET THE MODEST BUDGET

Instructor 150 only $39.95

Exclusive Push-Button film advance mechanism is so simple any pupil can operate it. Just insert filmstrip into the projector, frame, focus, and push down film advance lever.

Permanently mounted 3" f/3.5 lens focuses from 19 inches. New 150 watt lamp with proximity reflector for brilliant projection. Exclusive lamp ejector for easy lamp replacement. Rear elevation adjustment. Complete operating instructions on rear plate of projector. At $39.95, the lowest-priced filmstrip projector on the market!

*Trade Mark.

For additional information, write Dept. AV99, Graflex, Inc., Rochester 3, N. Y. A subsidiary of General Precision Equipment Corporation. Prices are subject to change without notice.

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The *Cousino* Language Laboratory

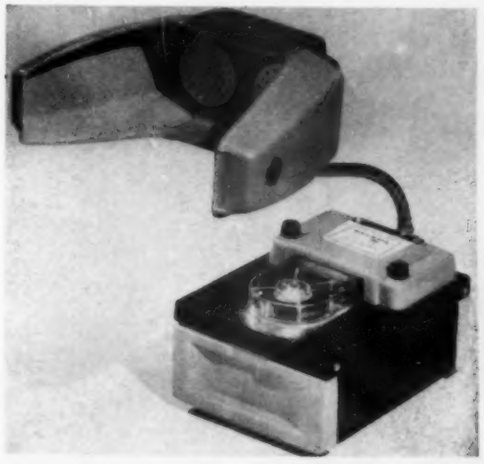
Featuring the performance quality and reliability of the commercially successful and time tested Cousino ECHO-MATIC* cartridge, with exciting new concepts in auto-loading and oral practice equipment.

The unique **MAG-MATIC*** Educator dual channel recorder and revolutionary new **VOICE-FLECTOR*** meet all the requirements of individual student practice in any system or location.

Installations with Cousino **AD-A-LAB*** furniture and instructor's control console provide complete language laboratory operation.

The **VOICE-FLECTOR** performs all the functions of conventional earphones, microphone and isolation booth.

**Cousino Trade Marks reg. Patents pending*



THE ECHO-MATIC endless loop cartridge provides immediate repetition of recorded language instruction and practice material without rewinding. The Echo-Matic cartridge makes loading and start-stop operation kindergarten easy, and provides tamper proof enclosure for the tape. Available in standard laboratory playing times.

THE MAG-MATIC EDUCATOR in use, with the Voice-Flector in position for listening, oral practice and viewing of visuals. The Voice-Flector is acoustically designed for direct, non-electronic self-analysis of auditory response. The Mag-Matic Educator and Voice-Flector may also be used independently with other equipment.

For more information, or a demonstration by your Cousino dealer, write:

Cousino ELECTRONICS CORPORATION
2107 ASHLAND AVENUE, TOLEDO 1, OHIO • PHONE CHERRY 3-4208

Designers and Manufacturers of Language Laboratory, Point-of-Sale and Audio-Visual Devices.

MEMBER OF NATIONAL AUDIO-VISUAL ASSOCIATION, MAGNETIC RECORDING INDUSTRY ASSOCIATION, SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS AND INSTITUTE OF RADIO ENGINEERS.

previews FILMSTRIP FACTS
PUBLISHED BY Encyclopaedia Britannica Films
SEPTEMBER 1959 AUDIO-VISUAL NEWS

NOW–A COMPLETE INTRODUCTORY SPANISH LANGUAGE COURSE–THE EBF GLORIA AND DAVID SERIES!

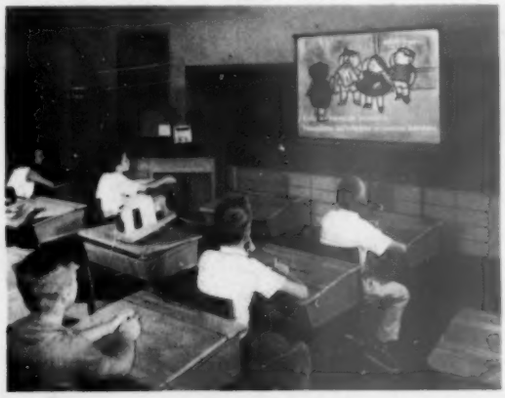
Wilmette, Illinois (EBF). An immediate, economical, and proved solution to language training has been devised by Encyclopaedia Britannica Films consisting of a complete Introductory Course in Spanish Language training at the elementary levels. Released now in this important year of educational advances in legislation, the Gloria and David Spanish Language course teaches more than 500 authentically spoken Spanish sentences to elementary children. The beginning of language training in the elementary grades is an established need. There is, however, a grave shortage of teachers at this level who are trained and experienced in the teaching of languages. Since there is no controversy over the accepted fact that a second language should be taught at the elementary level, there is still a question of who is going to do the teaching.

In view of this, Encyclopaedia Britannica Films has produced a modern foreign language course that can be put to use in classrooms immediately and economically... all that's required is a 33⅓ rpm record player, a screen, a filmstrip projector, and the compact set of 14 color filmstrips, 14 records, and Teacher's Study Guide.

No complicated electronic devices... no special space-consuming equipment is necessary.

It makes no extra demand on the training or qualifications of the present teaching staff and offers either one, or preferably, two years of language training.

The course is now available from EBF at low cost and until January 1, 1960 is sold under an *additional* 25% discount (see below).



Fourth grade children at a demonstration of the Gloria and David Spanish Language Course in an Illinois school.

Ernest F. Haden, noted professor of linguistics and chairman of the Romance Language Department–University of Texas and advisor to the Gloria and David program, examines one of the fourteen filmstrips of the course.

The New Gloria and David Course consists of

- 14 color filmstrips
- 14 pure vinylite LP records
- Teacher's Study Guide
- Handy carrying case

The series is divided into seven parts: Part I, Introducción (Introduction); Part II, Vamos a la Escuela (We go to School); Part III, En Casa (At Home); Part IV, Jugamos en la Escuela (We Play at School); Part V, Vivimos en la Ciudad (We Live in the City); Part VI, Visitamos el Campo (We Visit the Country); Part VII, Colores, Números, y Cosas (Colors, Numbers, and Objects).

Note: A similar Complete Introductory Course in ENGLISH–for teaching English to Spanish-speaking children is also available at the same price schedule. NDEA Funds do not apply on this English course.

What Famous Educators Say About the Need For Language Training at the Elementary Level

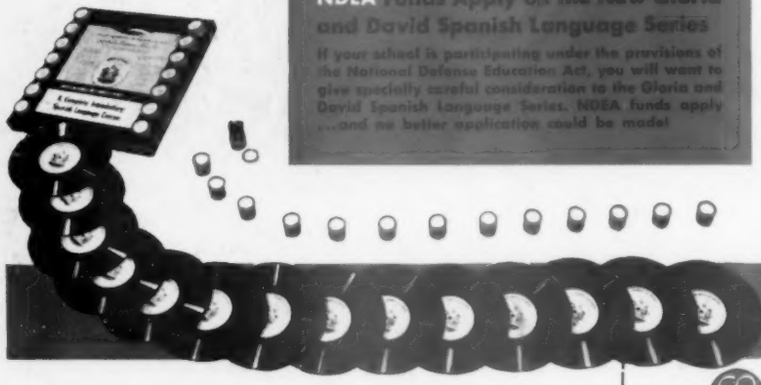
"The organ of the mind causes it to specialize in the learning of language before the ages of 10 and 14. After that, gradually, inevitably, it seems to become rigid, slow, less receptive."–Dr. Wilder Penfield.

"The present trend toward providing opportunities for second-language learning in the early grades indicates a clearer recognition of the patterns and sequence of child development. The young child enjoys language experience."–Dr. Arnold Gesell and Dr. Frances L. Ilg.

"Lessons are learned better when facts are recorded simultaneously by eye and ear on our minds. Dr. Penfield also believes that foreign languages should be taught in childhood when the mind is most receptive to a second tongue. He points out that although the language learned then may be forgotten with lack of practice, only a few weeks in the land where it is spoken will bring back the former ability.–"Explorer of the Human Brain."–Reader's Digest, July, 1958.

NDEA Funds Apply on the New Gloria and David Spanish Language Series

If your school is participating under the provisions of the National Defense Education Act, you will want to give specially careful consideration to the Gloria and David Spanish Language Series. NDEA funds apply ...and no better application could be made!



LIST PRICE EACH SERIES 14 color filmstrips–14 LP records–Teacher's Study Guide–carrying case **$175.00**

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201 to 300 sets–	30% discount–	$122.50 each–	with special 25% discount–	$ 91.87
over 300 sets–		$ 99.50 each–	with special 25% discount–	$ 74.62

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Encyclopaedia Britannica Films Dept. 60
1150 Wilmette Avenue, Wilmette, Illinois

- ☐ Please send _____ sets of the Complete Introductory Spanish Language Course (for English-speaking children)
- ☐ Please send _____ sets of the Complete Introductory Course in English (for Spanish-speaking children)
- ☐ Please have representative call.
- ☐ Please send further information ☐ SPANISH ☐ ENGLISH

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